

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A metal powder composition for use in selective laser sintering, comprising:

- an iron-based powder material;
- a nickel and/or nickel alloy powder material;
- a copper and/or copper alloy powder material; and
- a graphite powder material.

2. (Original) The metal powder composition according to claim 1, wherein a proportion of the graphite powder material ranges from 0.2 weight percent to 1.0 weight percent.

3. (Original) The metal powder composition according to claim 2, wherein a proportion of the iron-based powder material ranges from 60 weight percent to 90 weight percent, a proportion of the nickel and/or nickel alloy powder material ranges from 5 weight percent to 35 weight percent, and a proportion of the copper and/or copper alloy powder material ranges from 5 weight percent to 15 weight percent.

4. (Original) The metal powder composition according to claim 1, wherein at least one of a condition that the iron-based powder material comprises a chrome molybdenum steel powder material and a condition that the copper alloy powder material comprises a copper manganese alloy material is satisfied.

5. (Original) The metal powder composition according to claim 4, wherein a proportion of the chrome molybdenum steel powder material ranges from 60 weight percent to 80 weight percent, a proportion of the nickel powder material ranges from 15 weight percent to 25 weight percent, a proportion of the copper manganese alloy powder material ranges from 5 weight percent to 15 weight percent, and a proportion of the graphite powder material ranges from 0.2 weight percent to 0.75 weight percent.

6. (Original) The metal powder composition according to claim 1, wherein each of the iron-based powder material, the nickel and/or nickel alloy powder material, and the copper and/or copper alloy powder material has an average particle diameter ranging from 5 μ m to 50 μ m.

7. (Original) The metal powder composition according to claim 6, wherein the iron-based powder material has an average particle diameter less than that of the nickel and/or nickel alloy powder material and that of the copper and/or copper alloy powder material.

8. (Original) The metal powder composition according to claim 7, wherein the average particle diameter of the iron-based powder material is less than about three quarters of that of the nickel and/or nickel alloy powder material and the copper and/or copper alloy powder material.

9. (Original) The metal powder composition according to claim 6, wherein the iron-based powder material is mainly composed of aspherical particles, while each of the nickel and/or nickel alloy powder material and the copper and/or copper alloy powder material is mainly composed of spherical particles.

10. (Original) The metal powder composition according to claim 9, wherein the iron-based powder material comprises a chrome molybdenum steel powder material having an average particle diameter less than 25 μ m.

11. (Original) The metal powder composition according to claim 9, wherein the graphite powder material comprises particles having a maximum length less than the average particle diameter of the iron-based powder material.

12. (Original) The metal powder composition according to claim 1, wherein the metal powder composition comprises granulated powder.

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13. (Original) The metal powder composition according to claim 1, further comprising a carbide-producing element mixed therein.

14. (Currently Amended) A method of making a metal powder composition according to claim 1 ~~any one of claims 1 to 13~~, comprising:

preparing an iron-based powder material;

preparing a nickel and/or nickel alloy powder material;

preparing a copper and/or copper alloy powder material;

mixing the iron-based powder material, the nickel and/or nickel alloy powder material, and the copper and/or copper alloy powder material;

mixing graphite flakes in a mixture of the iron-based powder material, the nickel and/or nickel alloy powder material, and the copper and/or copper alloy powder material; and

crushing a resultant mixture.

15. (Currently Amended) A three-dimensional object shaped by sintering the metal powder composition according to claim 1 ~~any one of claims 1 to 13~~.